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Supersoft X-ray sources: Basic parameters

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Abstract

The parameters of ten supersoft X-ray sources observed by ROSAT obtained using blanketing approximations and LTE model atmospheres are analyzed. The consistency of the resulting parameters with a model with stable/recurrent burning on the surface of the white dwarf is studied. The luminosity and sizes of seven of the sources are in good agreement with this model. The masses of the white dwarfs in these sources are estimated. A formula that can be used to estimate the masses of white dwarfs in classical super-soft sources based on their effective temperatures is presented. © 2003 MAIK "Nauka/Interperiodica".

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